INDEX TO VOLUME 27

ARNDT, N. T. Differentiation of Komatiite Flows 279

ASHWAL, L. D., *see* MORRISON, D. A.

BALL, T. K. *see* MERRIMAN, R. J.

BARNES, S. J., *and* NALDRETT, A. J. Geochemistry of the J-M Reef of the Stillwater Complex, Minneapolis Adit Area. II. Silicate Mineral Chemistry and Petrogenesis 791

BELLIENI, G., COMIN-CHIARAMONTI, P., MARQUES, L. S., MELFI, A. J., NARDY, A. J. R., PAPATRECHAS, C., PICCIRILLO, E. M., ROISENBERG, A., *and* STOLFA, D. Petrogenetic Aspects of Acid and Basaltic Lavas from the Parana Plateau (Brazil): Geological, Mineralogical and Petrochemical Relationships 915

BERG, J. H., *see* DOCKA, J. A.

BERMAN, R. G., ENGI, M., GREENWOOD, H. J. *and* BROWN, T. H. Derivation of Internally-Consistent Thermodynamic Data by the Technique of Mathematical Programming: a Review with Application to the System MgO 1331

BEVINS, R. E., *see* MERRIMAN, R. J.

BHATTACHARYA, A., *and* SEN, S. K. Granulite Metamorphism, Fluid Buffering, and Dehydration Melting in the Madras Charnockites and Metapelites 1119

BOHLEN, S. R., DOLLASE, W. A., *and* WALL, V. J. Calibration and Applications of Spinel Equilibria in the System FeO–Al_2O_3–SiO_2 1143

BOHLEN, S. R., *and* LIOTTA, J. J. A Barometer for Garnet Amphibolites and Garnet Granulites 1025

BOUDREAU, A. E., MATHEZ, E. A., *and* MCCALLUM, I. S. Halogen Geochemistry of the Stillwater and Bushveld Complexes: Evidence for Transport of the Platinum-Group Elements by Cl-Rich Fluids 967

BREARLEY, M., *and* SCARFE, C. M. Dissolution Rates of Upper Mantle Minerals in an Alkali Basalt Melt at High Pressure: An Experimental Study and Implications for Ultramafic Xenolith Survival 1157

BROPHY, J. G., *and* MARSH, B. D. On the Origin of High Alumina Arc Basalt and the Mechanics of Melt Extraction 763

BROWN, T. H., *see* BERMAN, R. G.

BROWN, W. L., *see* PARSONS, I.

CALK, L. C., *see* DODGE, F. C. W.

CAMPBELL, I. H., *and* TURNER, J. S. The Influence of Viscosity in Fountains in Magma Chambers 1

CATHELINEAU, M. The Hydrothermal Alkali Metasomatism Effects on Granitic Rocks: Quartz Dissolution and Related Subsolidus Changes 945

CHAMBERLAIN, C. P. Evidence for the Repeated Folding of Isotherms during Regional Metamorphism 63

CHAROY, B. The Genesis of the Cornubian Batholith (South-West England): the Example of the Carnmenellis Pluton 571

CHATTERJEE, N., *see* SAXENA, S. K.

CHATTERJEE, N. D., *see* FLUX, S.

CHO, M., LIOU, J. G., *and* MARUYAMA, S. Transition from the Zeolite to Prehnite–Pumpellyite Facies in the Karmusten Metabasites, Vancouver Island, British Columbia 467

CLARK, R. G., JR., *and* LYONS, J. B. Petrogenesis of the Kinsman Intrusive Suite: Peraluminous Granitoids of Western New Hampshire 1365

COLLERSON, K. D., *and* SHERATON, J. W. Age and Geochemical Characteristics of a Mafic Dyke Swarm in the Archaean Vestfold Block, Antarctica: Inferences about Proterozoic Dyke Emplacement in Gondwana 853

COMIN-CHIARAMONTI, P., *see* BELLIENI, G.

DEBON, F., LE FORT, P., SHEPPARD, S. M. F., *and* SONET, J. The Four Plutonic Belts of the Transhimalaya-Himalaya: a Chemical, Mineralogical, Isotopic, and Chronological Synthesis along a Tibet-Nepal Section 219

DOCKA, J. A., BERG, J. H., *and* KLEWIN, K. W. Geothermometry in the Kiglapait Aureole. II. Evaluation of Exchange Thermometry in a Well-Constrained Thermal Setting 605

DODGE, F. C. W., CALK, L. C., *and* KISTLER, R. W. Lower Crustal Xenoliths, Chinese Peak Lava Flow, Central Sierra Nevada 1277

DOLLASE, W. A., *see* BOHLEN, S. R.

DUNN, T. An Investigation of the Oxygen Isotope Geochemistry of the Stillwater Complex 987

ELLIS, D. J., *and* THOMPSON, A. B. Subsolidus and Partial Melting Reactions in the Quartz-excess $CaO+MgO+Al_2O_3+SiO_2+H_2O$ System under Water-excess and Water-deficient Conditions to 10 kb: Some Implications for the Origin of Peraluminous Melts from Mafic Rocks 91

ENGI, M., *see* BERMAN, R. G.

ERIKSSON, G., *see* SAXENA, S. K.

FERRY, J. M. Infiltration of Aqueous Fluid and High Fluid:Rock Ratios During Greenschist Facies Metamorphism: A Reply 695

FLUX, S., *and* CHATTERJEE, N. D. Experimental Reversal of the Na-K Exchange Reaction Between Muscovite-Paragonite Crystalline Solutions and a 2 Molal Aqueous (Na, K) Cl Fluid 665

GIRARDI, V. A. V., RIVALENTI, G., *and* SINIGOI, S. The Petrogenesis of the Niquelandia Layered Basic-Ultrabasic Complex, Central Goias, Brazil 715

GOLES, G. G. Miocene Basalts of the Blue Mountains Province in Oregon. I. Compositional Types and their Geological Settings 495

GRAHAM, C. M., *see* WOOD, B. J.

GRAPES, R. H. Melting and Thermal Reconstitution of Pelitic Xenoliths, Wehr Volcano, East Eifel, West Germany 343

GREENWOOD, H. J., *see* BERMAN, R. G.

GUPTA, L. N., *and* JOHANNES, W. Genetic Model for the Stromatic Migmatites of the Rantasalmi-Sulkava Area, Finland 521

HARRIS, C. A Quantitative Study of Magmatic Inclusions in the Plutonic Ejecta of Ascension Island 251

HEINRICH, C. A. Eclogite Facies Regional Metamorphism of Hydrous Mafic Rocks in the Central Alpine Adula Nappe 123

HERTOGEN, J., *see* MAALØE, S.

HUPPERT, H. E., *see* TURNER, J. S.

JACQUEMIN, H., *see* PARSONS, I.

JOHANNES, W., *see* GUPTA, L. N.

KISTLER, R. W., *see* DODGE, F. C. W.

KLEWIN, K. W., *see* DOCKA, J. A.
KOKELAAR, P. Petrology and Geochemistry of the Rhobell Volcanic Complex: Amphibole-Dominated Fractionation at an Early Ordovician Arc Volcano in North Wales 887
LAUL, J. C., *see* NABELEK, P. I.
LE BAS, M. J., LE MAITRE, R. W., STRECKEISEN, A., *and* ZANETTIN, B. A Chemical Classification of Volcanic Rocks Based on the Total Alkali–Silica Diagram 745
LE FORT, P., *see* DEBON, F.
LE MAITRE, R. W., *see* LE BAS, M. J.
LIOTTA, J. J., *see* BOHLEN, S. R.
LIOU, J. G., *see* CHO, M.
LYONS, J. B., *see* CLARK, R. G., JR.
MAALØE, S., SØRENSEN, I., *and* HERTOGEN, J. The Trachybasaltic Suite of Jan Mayen 439
MACZUGA, D. E., *see* MORRISON, D. A.
MARQUES, L. S., *see* BELLIENI, G.
MARSH, B. D., *see* BROPHY, J. G.
MARUYAMA, S., *see* CHO, M.
MATHEZ, E. A., *see* BOUDREAU, A. E.
MELFI, A. J., *see* BELLIENI, G.
MERRIMAN, R. J., BEVINS, R. E., *and* BALL, T. K. Petrological and Geochemical Variations within the Tal y Fan Intrusion: a Study of Element Mobility During Low-Grade Metamorphism with Implications for Petrotectonic Modelling 1409
MCCALLUM, I. S., *see* BOUDREAU, A. E.
MORRISON, D. A., MACZUGA, D. E., PHINNEY, W. C., and ASHWAL, L. D. Stratigraphy and Petrology of the Mulcahy Lake Layered Gabbro: An Archean Intrusion in the Wabigoon Subprovince, Ontario 303
MORSE, S. A. Convection in Aid of Adcumulus Growth 1183
NABELEK, P. I., PAPIKE, J. J., *and* LAUL, J. C. The Notch Peak Granitic Stock, Utah: Origin of Reverse Zoning and Petrogenesis 1035
NALDRETT, A. J., *see* BARNES, S. J.
NARDY, A. J. R., *see* BELLIENI, G.
NICHOLAS, A. A Melt Extraction Model Based on Structural Studies in Mantle Peridotites 999
PAPATRECHAS, C., *see* BELLIENI, G.
PAPIKE, J. J., *see* NABELEK, P. I.
PARSONS, I., BROWN, W. L., *and* JACQUEMIN, H. Mineral Chemistry and Crystallization Conditions of the Mboutou Layered Gabbro–Syenite–Granite Complex, North Cameroon 1305
PHINNEY, W. C., *see* MORRISON, D. A.
PICCIRILLO, E. M., *see* BELLIENI, G.
PRESNALL, D. C., *see* SEN, G.
RIVALENTI, G., *see* GIRARDI, V. A. V.
ROCK, N. M. S. The Nature and Origin of Ultramafic Lamprophyres: Alnöites and Allied Rocks 155
ROISENBERG, A., *see* BELLIENI, G.
RUMBLE, D., *see* SPEAR, F. S.

SAXENA, S. K., *and* CHATTERJEE, N. Thermochemical Data on Mineral Phases: The System $CaO-MgO-Al_2O_3-SiO_2$ 827
SAXENA, S. K., SYKES, J., *and* ERIKSSON, G. Phase Equilibria in the Pyroxene Quadrilateral 843
SCARFE, C. M., *see* BREARLEY, M.
SCHLIESTEDT, M. Eclogite–Blueschist Relationships as Evidenced by Mineral Equilibria in the High-Pressure Metabasic Rocks of Sifnos (Cycladic Islands), Greece 1437
SEN, G. Mineralogy and Petrogenesis of the Deccan Trap Lava Flows around Mahabaleshwar, India 627
SEN, G., *and* PRESNALL, D. C. Petrogenesis of Dunite Xenoliths from Koolau Volcano, Oahu, Hawaii: Implications for Hawaiian Volcanism 197
SEN, S. K., *see* BHATTACHARYA, A.
SEYLER, M. Petrology and Genesis of Hercynian Alkaline Orthogneisses from Provence, France 1229
SHEPPARD, S. M. F., *see* DEBON, F.
SHERATON, J. W., *see* COLLERSON, K. D.
SINIGOI, S., *see* GIRARDI, V. A. V.
SONET, J., *see* DEBON, F.
SØRENSEN, I., see MAALØE, S.
SPARKS, R. S. J., *see* TURNER, J. S.
SPEAR, F. S., *and* RUMBLE, D. Pressure, Temperature and Structural Evolution of the Orfordville Belt, West-Central New Hampshire 1071
STOLFA, D., *see* BELLIENI, G.
STRECKEISEN, A., *see* LE BAS, M. J.
SYKES, J., *see* SAXENA, S. K.
THOMPSON, A. B., *see* ELLIS, D. J.
TORIUMI, M. Mechanical Segregation of Garnet in Synmetamorphic Flow of Pelitic Schists 1395
TURNER, J. S., *see* CAMPBELL, I. H.
TURNER, J. S., HUPPERT, H. E., *and* SPARKS, R. S. J. Komatiites II. Experimental and Theoretical Investigations of Post-emplacement Cooling and Crystallization 397
WALL, V. J., *see* BOHLEN, S. R.
WATERS, D. J. Metamorphic History of Sapphirine-bearing and Related Magnesian Gneisses from Namaqualand, South Africa 541
WIEBE, R. A. Lower Crustal Cumulate Nodules in Proterozoic Dikes of the Nain Complex: Evidence for the Origin of Proterozoic Anorthosites 1253
WILKINSON, J. F. G. Classification and Average Chemical Compositions of Common Basalts and Andesites 31
WOOD, B. J., *and* GRAHAM, C. M. Infiltration of Aqueous Fluid and High Fluid:Rock Ratios During Greenschist Facies Metamorphism: A Discussion 751
YODER, H. S., Potassium-Rich Rocks: Phase Analysis and Heteromorphic Relations 1215
ZANETTIN, B., *see* LE BAS, M. J.
ZEN, E. Aluminium Enrichment in Silicate Melts by Fractional Crystallization: Some Mineralogic and Petrographic Constraints 1095